

**DECLARATION AND POWER OF ATTORNEY FOR REISSUE PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**EXTENDING COMPUTER ARCHITECTURE FROM 32-BITS TO 64-BITS  
USING THE MOST SIGNIFICANT BIT OF THE STACK POINTER REGISTER  
TO INDICATE WORD SIZE**

the specification of which was filed on July 3, 1997 as

Reissue Application Serial No. 08/867,680

as amended on October 21, 1997

and was issued as U.S. Patent No. 5,430,864 ("original patent") from application Serial No. 321,459 filed October 11, 1994 (the "original application").

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a) which provides:

"information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability."

I believe that the original patent is inoperative or invalid by reason of the patentee claiming less than I had a right to claim in the patent.

The errors relied upon are as follows:

A. The claims, specifically claims 1, 2, 9 and 10 include an element which reads "most significant bit of a stack pointer register."

This element is unnecessarily limiting in that claims 1, 2, 9 and 10 should also specify that this element is a "least significant bit of a stack pointer register."

This error arose during the prosecution of the application which resulted in the issued patent where in an amendment filed October 11, 1994, claims were introduced containing the "most significant bit of a stack pointer register" language by the attorney who was prosecuting the application who did not appreciate the full scope of the invention.

B. Claim 1 contains an additional error in that the portion which reads:

"transferring the data values from a least significant portion of each register to a first stack save area in memory and transferring a least significant portion of a stack pointer value from the stack pointer register to the first stack save area in memory if the most significant bit of the stack pointer register indicates the first word size;  
setting a width indication bit in the first stack save area in memory, and transferring the data values from the registers to a second stack save area in memory and transferring the stack pointer value from the stack pointer register to the second stack save area if the most significant bit of the stack pointer register indicates the second word size such that the width indication bit in the first stack save area in memory indicates that the data values for the procedure have the second word size"

should read

"transferring the data values from a least significant portion of each register to a first stack save area in memory if the least significant bit of the stack pointer register indicates the first word size;  
transferring the data values from the registers to a second stack save area in memory if the least significant bit of the stack pointer register indicates the second word size."

The original Claim 1 language is unnecessarily limiting in that when using the least significant bit of the stack pointer register to indicate the second word size, instead of using the most significant bit of the stack pointer register to indicate the first word size, there is no need to:

- a) transfer a least significant portion of a stack pointer value from the stack pointer register to the first stack save area in memory; or
- b) set a width indication bit in the first stack save area in memory; or
- c) transfer the stack pointer value from the stack pointer register to the second stack save area; or
- d) know that the width indication bit in the first stack save area in memory indicates that the data values for the procedure have the second word size.

These errors arose during the prosecution of the application which resulted in the issued patent where in an amendment filed October 11, 1994, claim 73 (issued claim 1) was introduced containing the language noted above by the attorney who was prosecuting the application who did not appreciate the full scope of the invention;

The errors arose without any deceptive intention on the part of the applicant.

The errors were discovered between June 19, 1997 and June 26, 1997 by an engineer employed by assignee Sun Microsystems, Inc. who was preparing text to be published explaining how stack pointers work in certain workstations of assignee and others. As part of this task, the engineer reviewed U.S. Patent No. 5,430,864, to ensure that the information to be published was protected by an issued patent. As a result of such review, the engineer determined that the claims of U.S. Patent No. 5,430,864 did not adequately cover the inventive elements due to the errors noted above.

The reissue application overcomes the defect in the original patent by adding claims 17-32 identical to the claims 1-16 as issued but substituting references to the "most significant bit in the stack pointer register" with the "least significant bit in the stack pointer register" and by adding a new independent claim 33 and dependent claims 34-38 which generally correspond to claims 4-8 excepting that they depend from added claim 33 instead of claim 1.

I hereby appoint BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, a firm including: Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadickou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Kent M. Chen, Reg. No. 39,630; Lawrence M. Cho, Reg. No. 39,942; Thomas M. Coester, Reg. No. 39,637; Roland B. Cortes, Reg. No. 39,152; William Donald Davis, Reg. No. 38,428; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Tarek N. Fahmi, Reg. No. P41,402; James Y. Go, Reg. No. 40,621; David R. Halvorson, Reg. No. 33,395; Eric Ho, Reg. No. 39,711; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; Stephen L. King, Reg. No. 19,180; Michael J. Mallie, Reg. No. 36,591; Kimberley G. Nobles, Reg. No. 38,255; Ronald W. Reagin, Reg. No. 20,340; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Charles E. Shemwell, Reg. No. 40,171; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Allan T. Sponseller, Reg. No. 38,318; Steven R. Sponseller, Reg. No. 39,384; Edwin H. Taylor, Reg. No. 25,129; Lester J. Vincent, Reg. No. 31,460; John Patrick Ward, Reg. No. 40,216; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my attorneys; and Robert Andrew Diehl, Reg. No. P40,992; Sharmini Nathan Green, Reg. No. P-41,410; Thomas A. Hassing, Reg. No. 36,159; Edwin A. Sloane, Reg. No. 34,728; and Judith A. Szepesi, Reg. No. 39,393; my patent agents, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/First Inventor MICHAEL POWELL

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Palo Alto, California Citizenship USA  
(City, State) (Country)Post Office Address 2305 Emerson Street  
Palo Alto, California 94301Full Name of Second/Joint Inventor ROBERT CMELIK

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Sunnyvale, California Citizenship USA  
(City, State) (Country)Post Office Address 1024 Chula Vista Terrace  
Sunnyvale, California 94086Full Name of Third/Joint Inventor SHING KONG

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Mountain View, California Citizenship Hong Kong  
(City, State) (Country)Post Office Address Post Office Box 391379  
Mountain View, California 94039Full Name of Fourth/Joint Inventor DAVID DITZEL

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Los Altos Hills, California Citizenship USA  
(City, State) (Country)Post Office Address 4010 Page Mill Road  
Los Altos Hills, California 94022Full Name of Fifth/Joint Inventor EDMUND KELLY

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence San Jose, California Citizenship IRELAND  
(City, State) (Country)Post Office Address 5277 Rio Grande Drive  
San Jose, California 95136

**Full Name and Title of Officer of Employer:** Kenneth Olsen

**Signature:** 

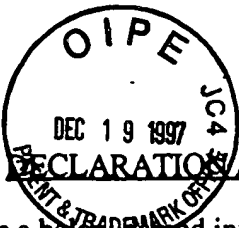
**Date:** December 2, 1997

**Residence** Palo Alto, California  
(City, State)

**Citizenship** United States

**P.O. Address:** 901 San Antonio Road

Palo Alto, California 94303 United States  
(City, State, Zip Code) (Country)



**DECLARATION AND POWER OF ATTORNEY FOR REISSUE PATENT APPLICATION**

As a ~~believed~~ inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**EXTENDING COMPUTER ARCHITECTURE FROM 32-BITS TO 64-BITS  
USING THE MOST SIGNIFICANT BIT OF THE STACK POINTER REGISTER  
TO INDICATE WORD SIZE**

the specification of which was filed on July 3, 1997 as

Reissue Application Serial No. 08/867,680

as amended on October 21, 1997

and was issued as U.S. Patent No. 5,430,864 ("original patent") from application Serial No. 321,459 filed October 11, 1994 (the "original application").

8/21/97  
OFFICE OF PETITIONS  
DEPUTY A/C PATENTS  
9/19/97

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a) which provides:

"information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability."

I believe that the original patent is inoperative or invalid by reason of the patentee claiming less than I had a right to claim in the patent.

The errors relied upon are as follows:

A. The claims, specifically claims 1, 2, 9 and 10 include an element which reads "most significant bit of a stack pointer register."

This element is unnecessarily limiting in that claims 1, 2, 9 and 10 should also specify that this element is a "least significant bit of a stack pointer register."

This error arose during the prosecution of the application which resulted in the issued patent where in an amendment filed October 11, 1994, claims were introduced containing the "most significant bit of a stack pointer register" language by the attorney who was prosecuting the application who did not appreciate the full scope of the invention.

B. Claim 1 contains an additional error in that the portion which reads:

"transferring the data values from a least significant portion of each register to a first stack save area in memory and transferring a least significant portion of a stack pointer value from the stack pointer register to the first stack save area in memory if the most significant bit of the stack pointer register indicates the first word size;

setting a width indication bit in the first stack save area in memory, and transferring the data values from the registers to a second stack save area in memory and transferring the stack pointer value from the stack pointer register to the second stack save area if the most significant bit of the stack pointer register indicates the second word size such that the width indication bit in the first stack save area in memory indicates that the data values for the procedure have the second word size"

should read

"transferring the data values from a least significant portion of each register to a first stack save area in memory if the least significant bit of the stack pointer register indicates the first word size;

transferring the data values from the registers to a second stack save area in memory if the least significant bit of the stack pointer register indicates the second word size."

The original Claim 1 language is unnecessarily limiting in that when using the least significant bit of the stack pointer register to indicate the second word size, instead of using the most significant bit of the stack pointer register to indicate the first word size, there is no need to:

- a) transfer a least significant portion of a stack pointer value from the stack pointer register to the first stack save area in memory; or
- b) set a width indication bit in the first stack save area in memory; or
- c) transfer the stack pointer value from the stack pointer register to the second stack save area; or
- d) know that the width indication bit in the first stack save area in memory indicates that the data values for the procedure have the second word size.

These errors arose during the prosecution of the application which resulted in the issued patent where in an amendment filed October 11, 1994, claim 73 (issued claim 1) was introduced containing the language noted above by the attorney who was prosecuting the application who did not appreciate the full scope of the invention;

The errors arose without any deceptive intention on the part of the applicant.

The errors were discovered between June 19, 1997 and June 26, 1997 by an engineer employed by assignee Sun Microsystems, Inc. who was preparing text to be published explaining how stack pointers work in certain workstations of assignee and others. As part of this task, the engineer reviewed U.S. Patent No. 5,430,864, to ensure that the information to be published was protected by an issued patent. As a result of such review, the engineer determined that the claims of U.S. Patent No. 5,430,864 did not adequately cover the inventive elements due to the errors noted above.

The reissue application overcomes the defect in the original patent by adding claims 17-32 identical to the claims 1-16 as issued but substituting references to the "most significant bit in the stack pointer register" with the "least significant bit in the stack pointer register" and by adding a new independent claim 33 and dependent claims 34-38 which generally correspond to claims 4-8 excepting that they depend from added claim 33 instead of claim 1.

I hereby appoint BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, a firm including: Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Kent M. Chen, Reg. No. 39,630; Lawrence M. Cho, Reg. No. 39,942; Thomas M. Coester, Reg. No. 39,637; Roland B. Cortes, Reg. No. 39,152; William Donald Davis, Reg. No. 38,428; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Tarek N. Fahmi, Reg. No. P41,402; James Y. Go, Reg. No. 40,621; David R. Halvorson, Reg. No. 33,395; Eric Ho, Reg. No. 39,711; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; Stephen L. King, Reg. No. 19,180; Michael J. Mallie, Reg. No. 36,591; Kimberley G. Nobles, Reg. No. 38,255; Ronald W. Reagin, Reg. No. 20,340; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Charles E. Shemwell, Reg. No. 40,171; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Allan T. Sponseller, Reg. No. 38,318; Steven R. Sponseller, Reg. No. 39,384; Edwin H. Taylor, Reg. No. 25,129; Lester J. Vincent, Reg. No. 31,460; John Patrick Ward, Reg. No. 40,216; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my attorneys; and Robert Andrew Diehl, Reg. No. P40,992; Sharmini Nathan Green, Reg. No. P-41,410; Thomas A. Hassing, Reg. No. 36,159; Edwin A. Sloane, Reg. No. 34,728; and Judith A. Szepesi, Reg. No. 39,393; my patent agents, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.